MO-ENG-C40 Rev. 4-99

File Code: Coop. Folder Sheet 1 of 2

## RESERVOIR AND SPILLWAY DATA SHEET\*

Landowner_		puted	Date	e	Checked By:		
Drainage Areaac. Average Watershed Land Slope, Y =%			AUXILIARY SPILLWAY DESIGN				
Flow Length, $\ell =$ ft.			Auxiliary Spillway Elevation				
Auxiliary Spillway Condition (Check One):			Auxiliary Spillway Flow Depth, H <sub>p</sub> (Check One):				
Good Fair	Poor			H <sub>p</sub>	Q <sub>a</sub>	Max. Exit Slope (%)	
	Principal	Auxiliary		(ft.)	(cfs/ft.)	1 (11)	
	Spillway	•		1.0	2	12	
	yr.				3		
24-Hr. Rainfall	in.	in.		1.3	3	10	
(MO-2-1-to7, EFH)				1.5	4	6	
Runoff Curve No. (From reverse side)		<del></del>					
Watershed Runoff (V <sub>r</sub> )	in.	in.	Auxiliary Sp	oillway Elev	$v. + H_p$		
(MO-2-11 to 24, EFH)			V <sub>sa</sub> (From re	everse side)	)	ac.ft.	
Q <sub>i</sub> (Chapt. 2, EFH)		cfs	$V_{ra} = Aux. I$	Runoff 3 D.	A. ÷12	ac.ft.	
PRINCIPA	L SPILLWAY D	<u>ESIGN</u>	$V_{sa}$				
Inlet Elevation			Q <sub>0</sub> /Q <sub>i</sub> Facto	r (MO-11-	4. EFM)		
Pipe Diameter		in.	$Q_0 = Q_0/Q_i$		, ,	cfs	
Pipe Diameterin.  Kind of Pipe (Check One):			$Q_{0a} = Q_0 - Q_{0p} $ cfs				
CMP WSP Smooth Plastic			$Q_{0a} = Q_0$ for pipes <10" Dia.)				
I d CD'		C.	Bottom W			_Use ft.	
Length of Pipe		ft.		$q_a$			
Head		ft.	_		<u>%</u> ; Max		
Q <sub>op</sub> (MO-3-13 to 20, EF	FH)	cfs	Settlea Fi	ui Eiev.=	Aux. Spwy	v.Elev.	
$Q_{op} \div D.A.$		cfs/ac	$+H_{I}$	$_{,}+1$ ft. $F$	reeboard		
$V_s$ (MO-11-3, EFH)		ft.		HEIGHT	×STORAG	E CHECK	
$V_{sp} = V_s \times D.A.$		ac.ft.	H = Aux. Sp			<u> </u>	
Stage: Prin. to Auxiliary	y	ft.	- Low	Elev. on <b>Ç</b>		ft.	
(From reverse side)			$V_p = 0.4 \times _{\_}$	ac.	perm. Pool		
Min. Stage for Full Pipe	Flow	ft.	×	ft. wa	ter depth	ac.ft.	
(MO-3-10 to 12, EFH)	)		$S = V_p + V_s$			ac.ft.	
Stage Used		ft.	Product = H		1 5'11 51		
			Overall Heig		a Fill Elev.	ft.	
		GLOS	SSARY	v. e bowi	isticum 10c	1t.	
D.A.: Drainage area.				vol. of stor	rage below au	x. spwy.	
H: Effective fill hei	ight.		V <sub>p</sub> : Vol.	of storage b	pelow prin. sp	wy.	
H <sub>p</sub> : Design flow dep	$V_r$ : Vol. of runoff.						
Q <sub>i</sub> : Peak rate of runoff from design storm.			V <sub>ra</sub> : Vol. of runoff from aux. spwy. storm.				
Q <sub>0</sub> : Discharge from aux. spwy. floodrouting.			V <sub>s</sub> : Vol. of temporary storage: prin. to aux. crest.				
Q <sub>0a</sub> : Aux. spwy. discharge.			V <sub>sa</sub> : Vol. of temporary storage:prin. to aux. spwy.				
Q <sub>0p</sub> : Prin. spwy. discharge.			V <sub>sp</sub> : Vol. of temporary storage: prin. to aux. spwy.				
Qa: Aux. Spwy. discharge per foot of bottom width.			crest.				

<sup>\*</sup>Use limited to Class (a) dams and drainage areas of 250 acres or less.

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## RUNOFF CURVE NUMBER

## AVAILABLE STORAGE DATA

	KONOTI COKVE NOMBER							
			Hydrolic Soil Group					Sum of
		В		С		D		Product
L	Treatment							$Acres \times CN$
		Acres	CN	Acres	CN	Acres	CN	
С	Without Cons.		79		86		89	
	With Cons.		74		81		85	
	Poor		79		86		89	
P	Fair		69		79		84	
	Good		61		74		80	
M	Good		58		71		78	
	Poor Cover		66		77		83	
W	Fair Cover		60		73		79	
	Good Cover		55		70		77	
R	Incl. R.O.W.		84		90		92	
F			74		82		86	
О								
Drainage Area (D.A.) =ac. Total Product								

711	AILADLI	IOD DATA	<u>.</u>	
Elev.	Area Fl	ooded	Interval	Accum.
	Sq. In.	Acres	Storage	Stor.
			AcFt.	Ac.Ft.

 $RCN = \frac{Total \ Product}{DrainageArea} = \underline{\qquad} Use \underline{\qquad}$ 

- L Land Use
- C Cropland
- P Pasture
- M Meadow
- W Woodland
- R Road
- F Farmstead
- O Other

